

6,888,536 to Westerman et al. (Westerman), and further in view of U.S. Patent No. 6,542,950 to Bodnar. The rejection is respectfully traversed.

As discussed during the December 7 personal interview, one of ordinary skill in the art would not have predictably modified Oross with the teachings of Westerman in the manner proposed by the Office Action. Specifically, the combinations of references alleged by the Office Action would render the track pad pointing device of Oross unsatisfactory for its intended purpose (MPEP §2143.01(V)) and change the principle of operation of the track pad pointing device (MPEP §2143.01(VI)).

The principle of operation of the track pad pointing device in Oross is to provide specialized touch areas that are dedicated to a specific function distinct from the function of a general touch sensing area 34 (see Fig. 1). Oross discloses that this principle of operation provides additional functions while increasing user friendliness. Further, Oross discloses that the specialized touch areas can have different textures than the general touch sensing area 34 to help the user know when he/she is touching the specialized touch areas. Modifying Oross with the single touch surface of Westerman would render the track pad pointing device of Oross inoperable because there would be no way of distinguishing between the areas and the user friendliness of the device would be reduced. Indeed, such a modification would result in there being no dedicated specialized sensing areas. Therefore, one skilled in the art would never make such a modification of Oross or Westerman.

Further, the combination of Oross, Westerman and Bodnar does not disclose, and would not have rendered obvious, an input method or system where translation of a detected input movement to an instruction signal involves a main process and one or more sub processes, the main process and the one or more sub processes together form a hierarchical control structure in which the main process determines whether an input movement corresponds to a prompt to invoke a particular mode, and where a particular mode is

indicated, the main process invokes a sub process in that mode, as recited in independent claims 1 and 8.

The subject matter of the pending claims is directed to a dynamic input system. This is a direct result of the hierarchical control structure comprising a main process and sub processes. The sub processes are dynamically loaded and terminated by the main process. The sub processes may run in parallel and/or in sequence. During operation of the input system, a single area may be claimed by one sub-process at one stage to perform one input mode (*e.g.*, key strokes), then at a subsequent stage be claimed by another sub-process having a higher priority value to perform a completely different input mode (*e.g.*, a mouse movement).

Oross does not integrate different input modes into a single area, so it does not and cannot disclose a solution for resolving the conflicts which occur between simultaneous sub processes running in the single and same input area.

Westerman does use a single input area for several input modes. However, in Westerman, there are no parallel input modes simultaneously using a single input area. The solution addressed by the subject matter of the pending claims dealing with conflicting sub processes is not disclosed by Westerman because this problem is not even recognized by Westerman. Further, the hierarchical control process comprising main process and sub-process architecture is not taught by Westerman. Westerman can deal only with predefined input modes (*e.g.*, key stroke and mouse), but not an arbitrary number of input modes. During operation, the device disclosed by Westerman cannot change input modes (*e.g.*, re-define the meaning of a cursor move) and cannot upload/delete input modes (*e.g.*, add a mode that can act like a joystick temporarily).

The claimed subject matter addresses a shortfall in the prior art to allow dynamic modification/loading/deletion of input modes by modifying the knowledge database.

In summary, Oross does not use a same area for different input modes (*i.e.*, no mix in physical space). Westerman does not run parallel input modes in one area (*i.e.*, no mix in time space). As such, even if combined, the combination of Oross and Westerman would not have rendered obvious the subject matter of the pending claims at least because dynamic sub processes and the conflict between these sub processes claiming a single input area are not recognized by these references and the addition of Bodnar does not address this issue either.

As discussed during the interview, Oross does not disclose that a touch in the general touch sensing area 34 is subjected to a hierarchical control structure with main processes and sub processes. The Office Action asserts that the specialized sensing areas in Oross correspond to the claimed sub processes. However, as discussed during the interview, a touch in the general sensing area 34 does not invoke an operation of one of the specialized sensing areas. Instead, general touch sensing area 34 merely functions as a cursor (see col. 5, lines 54-57). Westerman and Bodnar fail to overcome this deficiency of Oross. Therefore, independent claims 1 and 8 are distinguishable over the combination of Oross, Westerman and Bodnar for at least this additional reason.

Furthermore, the combination of Oross, Westerman and Bodnar does not disclose, and would not have rendered obvious, an input method or system having a main process that manages one or more sub processes by assigning a priority value such that a sub process having a minor priority value does not impede a sub process having a major priority value, as recited in independent claims 1 and 8.

The Office Action acknowledges that Oross and Westerman do not disclose the above features, but cites Bodnar as allegedly overcoming the deficiency. However, Oross does not disclose that there is any problem with specialized sensing areas (allegedly corresponding to the claimed sub processes) impeding one another. Therefore, as discussed during the interview, one of ordinary skill in the art would not have predictably modified Oross with the

teachings of Bodnar in the manner proposed by the Office Action. Regardless, Bodnar fails to overcome the deficiencies of Oross and Westerman for the reasons discussed below.

Bodnar is directed to a self-adaptive processor overload control system for use with telephone switching systems (see col. 1, lines 7-13). To prevent a processor overload, Bodnar discloses a low priority counter value reset process 114 that resets counter values for queues Q1-Qk and reinitiates a work administration process (see col. 6, lines 15-17). Essentially, Bodnar discloses a counter value reset routine CVR that reduces or halts work admission before call processing commences such that high priority work is completed before work admission is resumed (see col. 6, lines 17-21). The Office Action asserts that the counter value reset routine CVR of Bodnar corresponds to the claimed main process that manages one or more sub processes. However, the counter value reset routine CVR of Bodnar resets the counter values of all of the queues Q1-Qk (which the Office Action asserts correspond to the claimed sub processes).

Bodnar does not disclose that one queue receives a priority value so as to not impede another queue. Rather, Bodnar merely discloses that the counters of queues Q1-Qk are reset so that work admission is halted until "high priority work" is completed. The "high priority work" in Bodnar is not a sub process that is managed by the counter value reset routine CVR. Therefore, the combination of Oross, Westerman and Bodnar would not have rendered obvious an input method or system having a main process that manages one or more sub processes by assigning a priority value such that a sub process having a minor priority value does not impede a sub process having a major priority value, as recited in independent claims 1 and 8.

Additionally, the combination of Oross, Westerman and Bodnar would not have rendered obvious an input method or system in which a sub process is assigned to translate

one or more particular input movements into corresponding instruction signals by consulting a knowledge database, as recited in independent claims 1 and 8.

The Office Action, cites col. 6, lines 23-29 of Oross, as allegedly disclosing the above features. However, this section of Oross merely discloses either the use of special touch sensing areas 36, 38 or a general touch sensing area 34. Neither of these touch sensing areas of Oross consult a knowledge database based on particular input movements. With respect to the special touch sensing areas 36 and 38, the function in the special touch area is either preprogrammed and set or can be assigned be a user.

In either case, as discussed during the interview, the particular function of the special touch sensing area is set when an input movement is detected in the area. As such, Oross does not, and there is no need to, consult a knowledge database based on a touch in one of the special touch sensing areas. Likewise, the general touch sensing area 34 does not consult a knowledge database when an input touch is made, and is only used for cursor movement. Westerman and Bodnar fail to overcome the deficiencies of Oross. Therefore, the combination of Oross, Westerman and Bodnar would not have rendered obvious an input method or system in which sub process is assigned to translate one or more particular input movements into corresponding instruction signals by consulting the knowledge database, as recited in independent claims 1 and 8.

Therefore, independent claims 1 and 8 and dependent claims 3, 5, 6, 10, 14-16 and 30-40 are distinguishable over the combination of Oross, Westerman and Bodnar. Thus, it is respectfully requested that the rejection be withdrawn.

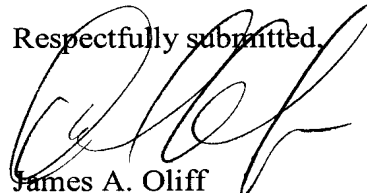
The Office Action rejects claims 11 and 12 under 35 U.S.C. §103(a) over Oross in view of Westerman in view of Bodnar, and further in view of Umeya et al. (Umeya), U.S. Patent No. 6,028,581. The rejection is respectfully traversed.

Claims 11 and 12 incorporate the features of independent claim 8. Umeya fails to overcome the deficiencies of Oross, Westerman and Bodnar. Therefore, claims 11 and 12 are patentable over the applied references for at least these reasons, as well as for the additional features that claims 11 and 12 recite. Thus, it is respectfully requested that the rejection be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:  
Petition for Extension of Time

Date: December 31, 2009

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